

## CDFA SEED HEALTH TESTING PRICE LIST

<u>Disease</u>	<u>Pathogen</u>	<u>Cost</u>	<u>Test duration</u>	<u>Minimum sample size</u>
	<u>Sample size</u>			
<b>Alfalfa</b>				
Bacterial Wilt	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i>	\$125	2-5 weeks	30,000 nontreated seed
Spring Black Stem	<i>Phoma medicaginis</i>	\$35	2 weeks	500 nontreated seed
Alfalfa Mosaic Virus	Alfalfa Mosaic Virus	\$85	3 weeks	2000 nontreated seed
Verticillium Wilt	<i>Verticillium albo-atrum</i>	\$35	2-5 weeks	100 g nontreated seed
Bacterial Leafspot	<i>Xanthomonas campestris</i> pv. <i>alfalfae</i>	\$125	2-5 weeks	30,000 nontreated seed
<b>Asparagus</b>				
Asparagus latent virus	Asparagus latent virus	\$100	2 weeks	500 nontreated seed
<b>Basil</b>				
Fusarium wilt	<i>F. oxysporoum</i> f. sp. <i>basilicum</i>	\$35	2-6 weeks	500 nontreated seed
<b>Beans &amp; other legumes</b>				
Common blight	<i>Xanthomonas campestris</i> pv. <i>phaseoli</i>	\$125	2-5 weeks	30,000 nontreated seed
Halo Blight	<i>Pseudomonas syringae</i> pv. <i>phaseolicola</i>	\$125	2-5 weeks	30,000 nontreated seed
Bacterial brown spot	<i>Pseudomonas syringae</i>			

	<i>pv. syringae</i>	\$125	2-5 weeks	30,000 nontreated seed
Bacterial Wilt	<i>Curtobacterium flaccumfaciens</i> <i>pv. flaccumfaciens</i>	\$125	2-5 weeks	30,000 nontreated seed
Purple seed stain	<i>Cercospora</i> spp.	\$35	2-5 weeks	500 nontreated seed
<i>Diaporthe</i>	<i>Diaporthe /Phomopsis</i> spp.	\$35	2-5 weeks	500 nontreated seed
Tomato Ringspot Virus	Tomato Ringspot Virus	\$60	1 week	500 nontreated seed
Tobacco Ringspot Virus	Tobacco Ringspot Virus	\$60	1 week	500 nontreated seed
<b>Beets</b>				
Verticillium wilt	<i>Verticillium dahliae</i>	\$ 35	2-3 weeks	500 nontreated seed
<i>Cercospora</i> leaf spot	<i>Cercospora beticola</i>	\$ 35	2-3 weeks	2000 seed
Bacterial leafspot	<i>Pseudomonas aptata</i>	\$125	3-5 weeks	2000 seed
<b>Carrots &amp; Corriander</b>				
Bacterial blight	<i>Xanthomonas campestris</i> <i>pv. carotae</i>	\$125	2-5 weeks	30,000 nontreated seed
Leaf spot	<i>Pseudomonas syringae</i>	\$125	2-5 weeks	30,000 nontreated seed
<i>Alternaria</i> Leaf blight	<i>Alternaria dauci [=A. porri]</i>	\$60	2 weeks	2000 nontreated seed
Black rot	<i>Alternaria radicina</i>	\$60	2 weeks	2000 nontreated seed

<b>Celery</b>				
Late blight	<i>Septoria apiicola</i>	\$35	1 weeks	4 g nontreated seed
<i>Alternaria</i> leaf spot	<i>Alternaria dauci</i> [=A. porri]	\$60	2 weeks	2 g nontreated seed
Root rot of celery	<i>Phoma apiicola</i>	\$125	2-5 weeks	2000 seed
<b>Clover</b>				
Bacterial wilt	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i>	\$125	2-5 weeks	30,000 nontreated seed
<b>Corn</b>				
<i>Diplodia</i>	<i>Stenocarpella macrospora</i> [= <i>Diplodia macrospora</i> ]	\$35	2-4 weeks	500 seed
<b>Cotton</b>				
Bacterial angular leafspot	<i>Xanthomonas campestris</i> pv. <i>malvacearum</i>	\$125 \$175	6-8 weeks 6-8 weeks	1200 nontreated seed 1200 treated seed
Anthracnose	<i>Glomerella gossypii</i> [anam. <i>Colletotrichum gossypii</i> ]	\$125 \$175	3 weeks 3 weeks	1200 nontreated seed 1200 treated seed
Fusarium wilt (FOV)	<i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	\$35	2-5 weeks	500 nontreated seed

<b>Crucifers (Cabbage, broccoli, etc.)</b>					
Black leg	<i>Phoma lingam</i>	\$60	3 weeks	1000 nontreated seed	
Alternaria leafspots	<i>A. brassicae; A. brassicicola</i>	\$60	3 weeks	1000 nontreated seed	
White mold	<i>Sclerotinia</i> spp.	\$35	2 weeks	500 nontreated seed	
Black rot	<i>Xanthomonas campestris</i> pv. <i>campestris</i>	\$125	2-5 weeks	30,000 nontreated seed	
Bacterial Leafspot	<i>Pseudomonas syringae</i> pv. <i>maculicola</i>	\$125	2-5 weeks	30,000 nontreated seed	
<i>Alternaria</i> leaf spots	<i>Alternaria</i> spp.	\$60	2 weeks	1000 nontreated seed	
<i>Rhizoctonia</i> spp.	<i>Rhizoctonia</i> spp.	\$35	2 weeks	50g/16K nontreated seed	
<b>Cucurbits (squash, melon, cucumber, watermelon, etc.)</b>					
Squash Mosaic Virus	Squash Mosaic Virus	\$85	5 weeks	1200 seed	
Bacterial angular leafspot	<i>Pseudomonas syringae</i> pv. <i>lachrymans</i>	\$125	2-5 weeks	2,000 nontreated seed	
Gummy stem blight	<i>Didymella bryoniae</i>	\$125	2-5 weeks	2,000 nontreated seed	
Anthracnose	<i>Colletotrichum orbiculare</i>	\$125	2-5 weeks	2,000 nontreated seed	
Scab	<i>Cladosporium cucumerinum</i>	\$35	2-5 weeks	500 nontreated seed	
Fusarium diseases	<i>Fusarium</i> spp.	\$35	2-5 weeks	500 nontreated seed	
Fruit Blotch	<i>Acidovorax avenae</i> subsp. <i>citrulli</i>	\$450	3-6 weeks	10,000 seed	

<b>Eggplant</b>				
Fusarium wilt	<i>Fusarium oxysporum</i>	\$35	2-5 weeks	500 nontreated seed
<b>Grasses &amp; Grains</b>				
Blind Seed	<i>Gloeotinia temulenta</i>	\$35	2-5 weeks	50 g nontreated seed
Root rot	<i>Cochliobolus sativus</i>	\$35	2 weeks	500 nontreated seed
Foot rot of grasses	<i>Drechslera sorokiniana</i>	\$35	2 weeks	500 nontreated seed
Ergot of grasses	<i>Claviceps purpurea</i>	\$35	1 week	500 nontreated seed
<b>Lettuce</b>				
Lettuce Mosaic Virus	Lettuce Mosaic Virus	\$160	1 week	30,000 nontreated seed
Septoria Leaf Spot	<i>Septoria lactucae</i>	\$35	1 week	30,000 nontreated seed
Bacterial leafspot	<i>Xanthomonas campestris</i> pv. <i>vitiensis</i>	\$125	2-5 weeks	30,000 nontreated seed
<b>Onions (and leeks, etc.)</b>				
Onion smut	<i>Urocystis magica</i>	\$35	1 week	50 g nontreated seed
White Rot	<i>Sclerotium cepivorum</i>	\$35	2 weeks	80 g nontreated seed
Botrytis diseases	<i>Botrytis spp.</i>	\$35	2 weeks	500 g nontreated seed

<b>Parsley</b>					
Late blight	<i>Septoria petrosellini</i>	\$35	1 week	15 g nontreated seed	
Alternaria leaf spot	<i>Alternaria dauci [=A. porri]</i>	\$60	2 weeks	2 g nontreated seed	
<b>Pepper</b>					
Anthracnose, Ripe rot	<i>Colletotrichum spp.</i>	\$35	2-5 weeks	500 nontreated seed	
Tobacco Mosaic Virus	Tobacco Mosaic Virus	\$60	1 week	500 nontreated seed	
Tomato Ringspot Virus	Tomato Ringspot Virus	\$60	1 week	500 nontreated seed	
Bacterial spot	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i>	\$125	2-5 weeks	30,000 nontreated seed	
Bacterial speck	<i>Pseudomonas syringae</i> pv. <i>tomato</i>	\$125	2-5 weeks	30,000 nontreated seed	
<b>Rice</b>					
Rice Blast	<i>Pyricularia grisea</i>	\$35	2 weeks	500 nontreated seed	
Smut	<i>Tilletia horida</i>	\$35	1 week	100 g nontreated seed	
Brown leafspot	<i>Drechslera oryzae</i>	\$35	2 weeks	500 nontreated seed	
<b>Safflower</b>					
Fusarium wilt	<i>Fusarium oxysporum</i> f. sp. <i>carthami</i>	\$35	2-5 weeks	500 nontreated seed	
Rust	<i>Puccinia carthami</i>	\$35	2 weeks	500 nontreated seed	

<b>Spinach</b>				
Leaf spot	<i>Colletotrichum dematium</i> f. sp. <i>spinaciae</i>	\$60	2-3 weeks	1000 nontreated seed
Verticillium wilt	<i>Verticillium dahliae</i>	\$35	2-3 weeks	500 nontreated seed
<b>Sunflower</b>				
Downy mildew	<i>Plasmopara halstedii</i>	\$125	4-5 weeks	1000 nontreated seed
Verticillium wilt	<i>Verticillium</i> spp.	\$35	3 weeks	500 nontreated seed
Alternaria leaf blight	<i>Alternaria</i> spp.	\$35	3 weeks	500 nontreated seed
Fusarium wilt or stalk rot	<i>Fusarium</i> spp.	\$35	2-5 weeks	500 nontreated seed
Septoria leaf spot	<i>Septoria helianthi</i>	\$35	3 weeks	500 nontreated seed
<b>Tomato</b>				
Fusarium root rot	<i>Fusarium oxysporum</i> f. sp. <i>radicis-lycopersici</i>	\$35	2-5 weeks	500 nontreated seed
Fusarium wilt	<i>Fusarium oxysporum</i> f. sp. <i>lycopersici</i>	\$35	2-5 weeks	500 nontreated seed
Tomato Mosaic Virus	Tomato Mosaic Virus	\$60	1 week	500 nontreated seed
Tobacco Mosaic Virus	Tobacco Mosaic Virus	\$60	1 week	500 nontreated seed
Tobacco Ringspot Virus	Tobacco Ringspot Virus	\$60	1 week	500 nontreated seed
Tomato Ringspot Virus	Tomato Ringspot Virus	\$60	1 week	500 nontreated seed

**Tomato (Continued)**

Bacterial spot	<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i>	\$125	2-5 weeks	30,000 nontreated seed
Bacterial speck	<i>Pseudomonas syringae</i> pv. <i>tomato</i>	\$125	2-5 weeks	30,000 nontreated seed
Bacterial wilt	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i>	\$125	2-5 weeks	30,000 nontreated seed
Potato Spindle Tuber Viroid (PSTVd)	PSTVd	\$250	3 weeks	1000 seed

**Wheat (and other grains)**

Glume blotch	<i>Leptosphaeria nodorum</i>	\$35	2-5 weeks	500 nontreated seed
Karnal Bunt	<i>Tilletia indica</i>	\$35	1 week	250 g nontreated seed
Dwarf Bunt	<i>Tilletia controversa</i>	\$35	1 week	250 g nontreated seed
Flag Smut	<i>Urocystis agropyri</i>	\$35	1 week	250 g nontreated seed
All 3 smuts	T.i., + TcK + U.a.	\$50	1 week	250 g nontreated seed

Additional seed health tests, not listed above, may be available by special arrangement in accordance with the following schedule. For seeds of the same kind, for each sample:

- (1) Seed blotter tests, \$35 for 400 seed test, \$60 for a 1000 seed test
- (2) Agar plate tests, \$35 for 400 seed tests
- (3) Extraction and plating tests, \$125 for first bacterial pathogen, \$25 for each additional bacterial pathogen from the same sample.
- (4) DNA hybridization test for Potato spindle tuber viroid, \$250.
- (5) Enzyme-linked immunosorbant assay (ELISA) tests, \$60 for 400 seed tests, \$85 for 1000 seed tests.
- (6) Centrifuge-wash & microscopy tests, \$35
- (7) Grow-out tests, \$125
- (8) bioassay tests for the presence of fungicidal substances on seeds, \$35

April 2006